



3. Upon information and belief, defendant InfoBionic, Inc. is a corporation organized under the laws of the State of Delaware, having its principal place of business at 600 Suffolk Street, Lowell, MA 01854.

### **JURISDICTION AND VENUE**

4. This is an action for patent infringement arising under the patent laws of the United States, Title 35, United States Code.

5. This Court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

6. Venue is proper in this district pursuant to 28 U.S.C. §§ 1391(b) and (c) and 1400(b).

### **FACTS**

7. U.S. Patent No. 6,940,403 (the “‘403 patent”), entitled “Reprogrammable Remote Sensor Monitoring System,” was duly and legally issued on September 6, 2005. CardioNet, Inc. was the original owner by assignment of all right, title, and interest in and to the ‘403 patent, including without limitation the right to sue and recover for past infringement thereof. A copy of the ‘403 patent is attached as Exhibit A to this Complaint.

8. U.S. Patent No. 6,225,901 (the “‘901 patent”), entitled “Reprogrammable Remote Sensor Monitoring System,” was duly and legally issued on May 1, 2001. CardioNet, Inc. was the original owner by assignment of all right, title, and interest in and to the ‘901 patent, including without limitation the right to sue and recover for past infringement thereof. A copy of the ‘901 patent is attached as Exhibit B to this Complaint.

9. U.S. Patent 7,212,850 (the “‘850 patent”), entitled “System and Method for Processing and Presenting Arrhythmia Information to Facilitate Heart Arrhythmia Identification and Treatment,” was duly and legally issued on May 1, 2007. CardioNet, Inc. was the original owner by assignment of all right, title, and interest in and to the ‘850 patent, including without limitation the right to sue and recover for past infringement thereof. A copy of the ‘850 patent is attached as Exhibit C to this Complaint.

10. U.S. Patent 7,907,996 (the “‘996 patent”), entitled “System and Method for Processing and Presenting Arrhythmia Information to Facilitate Heart Arrhythmia Identification and Treatment,” was duly and legally issued on March 15, 2011. CardioNet, Inc. was the original owner by assignment of all right, title, and interest in and to the ‘996 patent, including without limitation the right to sue and recover for past infringement thereof. A copy of the ‘996 patent is attached as Exhibit D to this Complaint.

11. On December 31, 2012, CardioNet, Inc. assigned all right, title, and interest in and to the ‘403 patent, ‘901 patent, ‘850 patent, and ‘996 patent (collectively, the “patents-in-suit”) to Braemar. Effective the same day, Braemar granted CardioNet, Inc. an exclusive license to make, use, offer to sell, sell, import, license, and exploit the patents-in-suit. The license grants CardioNet, Inc. an exclusive license to the patents-in-suit in the field of applications and services for the monitoring and monitoring-related services of medical monitoring and diagnostic devices, while all other rights, title, and interest in the patents-in-suit are retained by Braemar. CardioNet, Inc. is now CardioNet, LLC as confirmed by an August 1, 2013 Certificate of Conversion to Limited Liability Company of CardioNet, Inc. (a Delaware corporation) to CardioNet, LLC (a Delaware limited liability company) filed with the Secretary of State for the State of Delaware.

12. CardioNet's Mobile Cardiac Outpatient Telemetry<sup>TM</sup> (MCOT<sup>TM</sup>) is a market leader in the field of Mobile Cardiac Telemetry ("MCT"). The CardioNet MCOT<sup>TM</sup> was the first commercialized MCT device on the market and was the result of substantial investment by CardioNet. The CardioNet MCOT<sup>TM</sup> includes beat-to-beat, real-time analysis, automatic arrhythmia detection, and wireless ECG transmission.

13. CardioNet spends millions of dollars per year developing new technologies and protecting its inventions, including by filing for and obtaining United States patents.

14. On information and belief, InfoBionic was founded in 2011. InfoBionic states that it "empowers physicians with the control they need to transform the efficiency with which they monitor and diagnose patients with cardiac arrhythmias." (Ex. E (5/7/2015 capture of <http://infobionic.com/our-story/>), pg. 1.)

15. InfoBionic claims that its "MoMe® Kardia system is the first and only wireless remote patient monitoring platform to bring all aspects of cardiac arrhythmia detection and monitoring management under physicians' direct control...." (Ex. F (5/7/2015 capture of <http://infobionic.com/the-system/>), pg. 1.) The MoMe® Kardia System is a "single universal device" that "enables physicians to remotely transition between Holter, Event, and MCT technologies based on patient need at any given time during their monitoring period." (*Id.* at pg. 2.)

16. Upon information and belief, defendant InfoBionic actively solicits and does business throughout this Judicial District, including making, using, offering for use, selling, and/or offering for sale the MoMe® Kardia System, including the MoMe® Kardia device that records and transmits a patient's electrocardiographic signal and the MoMe® Kardia cloud server that detects arrhythmias and enables human review of arrhythmia data.

17. InfoBionic's MoMe® Kardia System will directly compete with CardioNet's MCOT™ System. InfoBionic has stated publicly that CardioNet "is one of the companies we are trying to disrupt with the MoMe™ system." (Ex. G (5/7/2015 capture of <http://www.wpiventureforum.org/monthly10912.html>), pg. 2.)<sup>1</sup>

18. The 510(k) submission for the MoMe® Kardia System relied upon CardioNet's MCOT™ device as one of two predicate devices. (Ex. H (Traditional 510(k) Premarket Notification for InfoBionic MoMe™ System), pgs. 5 and 7.) The 510(k) submission states that "[t]he MoMe System Indications for use are aligned with both the CardioNet and Preventice Indications" and that "[a]ll three devices are monitoring devices and are classified under the same FDA classification code of 21 CFR 870.1025, DSI." (*Id.* at pg. 8.)

19. At least four of the seven members of the InfoBionic management team as it existed on the date of this filing were previously employed by CardioNet: Ms. Anna McNamara; Mr. Chris Strasinski; Mr. Philip Leone; and Mr. Bill Swavely. (Ex. I (5/7/2015 capture of <http://infobionic.com/management-team/>).) Additionally, Dr. Ravi Kuppuraj was a member of the InfoBionic management team at least as recently as January 2015 and also was previously employed by CardioNet. (Ex. J (1/8/2015 capture of <http://infobionic.com/persons/ravi-kuppuraj-phd/>).)

20. Dr. Ravi Kuppuraj was the Chief Technology Office & Co-Founder of InfoBionic at least as recently as January 2015. (Ex. J.) He joined CardioNet in January 2001 as the Director of ECG Analysis. His responsibilities included the development of CardioNet's cardiac arrhythmia detection algorithms. InfoBionic described Dr. Kuppuraj as "an integral team

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<sup>1</sup> On information and belief, InfoBionic recently added "Kardia" to the original MoMe® name. Accordingly, certain exhibits cited herein refer to the system as simply the "MoMe System".

member that developed and launched CarioNet's revolutionary Mobile Cardiac Outpatient Telemetry (MCOT) product." (Ex. J.) Dr. Kuppuraj's employment with CardioNet ended in December 2002.

21. Ms. Anna McNamara is the Executive Vice President, Global Clinical Operations, of InfoBionic. (Ex. I, pg. 4.) Ms. McNamara was employed by CardioNet for over 10 years. She ultimately served as Senior Vice President, Clinical Operations and Research at CardioNet. (*Id.*) While at CardioNet, Ms. McNamara "built the clinical operations department for a new wireless technology" which "included developing and managing the clinical service, creating the clinical research strategy, training and support for sales and marketing, working with R&D on technology and software development and managing the Medical Advisory Board." (*Id.*) Upon information and belief, when Ms. McNamara left CardioNet in November 2013 she left to join InfoBionic.

22. Mr. Chris Strasinski is the Executive Vice President, Sales and Marketing, at InfoBionic. (Ex. I, pgs. 2-3.) Mr. Strasinski previously "held various sales roles at CardioNet culminating in Senior Vice President Sales" and his "[s]ignificant achievements [at CardioNet] included hiring over 80 sales representatives, acquiring synergistic businesses, and delivering significant market share gains." (*Id.*)

23. Mr. Philip Leone is the Executive Vice President, Reimbursement at InfoBionic. (Ex. I, pg. 3.) Mr. Leone was previously employed by CardioNet, "culminating as the Senior Vice President of Reimbursement Services & Compliance and a Corporate Officer." (*Id.*) His employment with CardioNet ended in April 2011.

24. Mr. Bill Swavely is the Chief Innovation Officer at InfoBionic. (Ex. I, pg. 5.) Mr. Swavely was previously employed as the Vice President of Information Technology at

CardioNet. His employment with CardioNet ended in August 2014 when he, upon information and belief, left to join InfoBionic.

### **INFRINGEMENT OF '403 PATENT**

25. InfoBionic has infringed and is continuing to infringe the '403 patent by making, using, selling, and/or offering for sale, in the United States and in this Judicial District, products, software, and/or services that incorporate or make use of one or more of the inventions covered by the '403 patent, including but not limited to the MoMe® Kardia System, thereby infringing one or more claims of the '403 patent.

26. InfoBionic's MoMe® Kardia System satisfies each and every element of one or more claims of the '403 patent, for example, and without limitation, claim 1 of the '403 patent.

27. Claim 1 of the '403 patent recites:

Apparatus for remotely monitoring and assessing the status of a human subject, the apparatus comprising:

at least one automatic sensor associated with and monitoring the condition of the human subject; and

a portable monitoring unit capable of communicating with a central monitoring device, the portable monitoring unit comprising:

a programmable microprocessor in communication with the at least one automatic sensor, the microprocessor being responsive to the occurrence of any of a set of activating parameters, the activating parameters selected from the group consisting of a preselected state of the at least one automatic sensor and a request signal from an external source,

a first transceiver in communication with the microprocessor, for communicating signals between the microprocessor and the central monitoring device, and

a power supply connected to provide power to at least one of the microprocessor and the first transceiver.

28. To the extent the preamble is considered a limitation, the MoMe® Kardia System satisfies the preamble of claim 1 of the '403 patent: "Apparatus for remotely monitoring and

assessing the status of a human subject.” The MoMe® Kardia System is a “remote physiologic monitoring system that detects non-life threatening arrhythmias” in humans. (Ex. H, pg. 5.)

29. The MoMe® Kardia System satisfies the following limitation of claim 1 of the ‘403 patent: “at least one automatic sensor associated with and monitoring the condition of the human subject.” The MoMe® Kardia System “incorporates a front end device worn by the patient that collects and streams ECG, heart rate and motion (activity) to a dedicated smartphone that continuously transmits the data to remote server.” (Ex. H, pg. 5.) It contains two ECG leads/channels and four electrodes for the collection of ECG data. (Ex. H, pg. 7.)

30. The MoMe® Kardia System satisfies the following limitation of claim 1 of the ‘403 patent: “a portable monitoring unit capable of communicating with a central monitoring device.” The ECG data is transmitted from the “front end device worn by the patient” to a “remote server” and “[t]he system then uses proprietary algorithms to continually analyze data and provide reports of detected events.” (Ex. H, pg. 5.) The MoMe® Kardia System is a “cloud computing based ambulatory ECG monitoring and arrhythmia detection system” that uses “[c]ustom software [to analyze] transmitted data in the cloud for occurrence of arrhythmia.” (Ex. K (presentation paper for Heart Rhythm Society (HRS) Annual Scientific Session 2014).)

31. The MoMe® Kardia System satisfies the following limitation of claim 1 of the ‘403 patent: “the portable monitoring unit comprising[] a programmable microprocessor in communication with the at least one automatic sensor, the microprocessor being responsive to the occurrence of any of a set of activating parameters, the activating parameters selected from the group consisting of a preselected state of the at least one automatic sensor and a request signal from an external source.” The programmable microprocessor of the remote MoMe® Kardia device controls the collection of ECG data from the electrodes and sends it to the



MoMe® Kardia cloud server for analysis. (Ex. K.) The microprocessor also accepts requests for data from the MoMe® Kardia cloud server upon the detection of an arrhythmia in order to provide information necessary to perform a high definition verification. (*Id.*)

32. The MoMe® Kardia System satisfies the following limitation of claim 1 of the ‘403 patent: “the portable monitoring unit comprising ... a first transceiver in communication with the microprocessor, for communicating signals between the microprocessor and the central monitoring device.” The ECG data is “transmitted from the device via Bluetooth® to a Smart Phone and subsequently uploaded to the cloud on a 3G commercial cellular network.” (Ex. K; *see also* Ex. H, pg. 7.)

33. The MoMe® Kardia System satisfies the following limitation of claim 1 of the ‘403 patent: “the portable monitoring unit comprising ... a power supply connected to provide power to at least one of the microprocessor and the first transceiver.” The MoMe® Kardia device includes a battery that provides power to the microprocessor and Bluetooth® transceiver and the Smart Phone includes a battery that provides power to the cellular transceiver. (Ex. K.)

34. InfoBionic became aware of the ‘403 patent at least as early as January 13, 2015, when counsel for Plaintiffs informed counsel for InfoBionic of the ‘403 patent during a telephone conversation addressing InfoBionic’s infringement of CardioNet intellectual property, including the ‘403 patent.

35. Upon information and belief, InfoBionic likely became aware of the ‘403 patent long before January 13, 2015, through the knowledge of its multiple executives who were former executives or employees of CardioNet who had extensive responsibilities involving CardioNet’s patented technologies.

36. InfoBionic has committed and continues to commit acts of infringement under 35 U.S.C. § 271. Upon information and belief, InfoBionic's acts of infringement are willful, intentional, and without lawful justification, entitling Plaintiffs to damages and treble damages pursuant to 35 U.S.C. § 284 and reasonable attorneys fees and costs incurred in prosecuting this action pursuant to 35 U.S.C. § 285. In committing these acts of infringement, InfoBionic acted despite an objectively high likelihood that its actions constituted infringement of at least one valid and enforceable claim of the '403 patent, and InfoBionic actually knew or should have known that its actions constituted an unjustifiably high risk of infringement of at least one valid and enforceable claim of the '403 patent.

37. The acts of infringement by InfoBionic set forth above have caused and will cause Plaintiffs irreparable harm for which they have no adequate remedy at law, and will continue unless enjoined by this Court.

### **INFRINGEMENT OF '901 PATENT**

38. InfoBionic has infringed and is continuing to infringe the '901 patent by making, using, selling, and/or offering for sale, in the United States and in this Judicial District, products, and/or software that incorporate or make use of one or more of the inventions covered by the '901 patent, including but not limited to the MoMe® Kardia System, thereby infringing one or more claims of the '901 patent.

39. InfoBionic's MoMe® Kardia System satisfies each and every element of one or more claims of the '901 patent, for example, and without limitation, claim 1 of the '901 patent.

40. Claim 1 of the '901 patent recites:

Apparatus for remotely monitoring and assessing the status of a human subject,  
the apparatus comprising:

- a central monitoring device;
- at least one automatic sensor associated with and monitoring the condition of the human subject; and
- a portable monitoring unit capable of communicating with the central monitoring device, the portable monitoring unit comprising
  - a remotely programmable microprocessor in communication with the at least one automatic sensor, the microprocessor being responsive to the occurrence of any of a set of activating parameters for an activation condition selected from the group consisting of a preselected state for the at least one automatic sensor and a request signal from an external source,
  - a first transceiver in communication with the microprocessor, for communicating signals between the microprocessor and the central monitoring device, and
  - a power supply connected to provide power to the microprocessor and to the first transceiver.

41. To the extent the preamble is considered a limitation, the MoMe® Kardia System satisfies the preamble of claim 1 of the ‘901 patent: “Apparatus for remotely monitoring and assessing the status of a human subject.” The MoMe® Kardia System is a “remote physiologic monitoring system that detects non-life threatening arrhythmias” in humans. (Ex. H, pg. 5.)

42. The MoMe® Kardia System satisfies the following limitation of claim 1 of the ‘901 patent: “a central monitoring device.” ECG data gathered by the MoMe® Kardia device is transmitted to a “remote server” and “[t]he system then uses proprietary algorithms to continually analyze data and provide reports of detected events.” (Ex H, pg. 5.) The MoMe® Kardia System is a “cloud computing based ambulatory ECG monitoring and arrhythmia detection system” that uses “[c]ustom software [to analyze] transmitted data in the cloud for occurrence of arrhythmia.” (Ex. K.)

43. The MoMe® Kardia System satisfies the following limitation of claim 1 of the ‘901 patent: “at least one automatic sensor associated with and monitoring the condition of the human subject.” The MoMe® Kardia System “incorporates a front end device worn by the

patient that collects and streams ECG, heart rate and motion (activity) to a dedicated smartphone that continuously transmits the data to remote server.” (Ex. H, pg. 5.) It contains two ECG leads/channels and four electrodes for the collection of ECG data. (Ex. H, pg. 7.)

44. The MoMe® Kardia System satisfies the following limitation of claim 1 of the ‘901 patent: “a portable monitoring unit capable of communicating with the central monitoring device.” The MoMe® Kardia System “incorporates a front end device worn by the patient that collects and streams ECG, heart rate and motion (activity) to a dedicated smartphone that continuously transmits the data to remote server.” (Ex. H, pg. 5.) The MoMe® Kardia System is a “cloud computing based ambulatory ECG monitoring and arrhythmia detection system” that uses “[c]ustom software [to analyze] transmitted data in the cloud for occurrence of arrhythmia.” (Ex. K.)

45. The MoMe® Kardia System satisfies the following limitation of claim 1 of the ‘901 patent: “the portable monitoring unit comprising a remotely programmable microprocessor in communication with the at least one automatic sensor, the microprocessor being responsive to the occurrence of any of a set of activating parameters for an activation condition selected from the group consisting of a preselected state for the at least one automatic sensor and a request signal from an external source.” The programmable microprocessor of the remote MoMe® Kardia device controls the collection of ECG data from the electrodes and sends it to a MoMe® Kardia cloud server for analysis. (Ex. K.) The microprocessor also accepts requests for data from the MoMe® Kardia cloud server upon the detection of an arrhythmia in order to provide information necessary to perform a high definition verification. (*Id.*) The microprocessor is remotely programmable because it is able to accept data and instructions from the MoMe® Kardia cloud server.

46. The MoMe® Kardia System satisfies the following limitation of claim 1 of the ‘901 patent: “the portable monitoring unit comprising ... a first transceiver in communication with the microprocessor, for communicating signals between the microprocessor and the central monitoring device.” The ECG data is “transmitted from the device via Bluetooth® to a Smart Phone and subsequently uploaded to the cloud on a 3G commercial cellular network.” (Ex. K; *see also* Ex. H, pg. 7.)

47. The MoMe® Kardia System satisfies the following limitation of claim 1 of the ‘901 patent: “the portable monitoring unit comprising ... a power supply connected to provide power to the microprocessor and to the first transceiver.” The device includes a battery that provides power to the microprocessor and Bluetooth® transceiver and the Smart Phone includes a battery that provides power to the cellular transceiver. (Ex. K.)

48. InfoBionic became aware of the ‘901 patent at least as early as July 20, 2012, which is the date of the first citation of the ‘901 patent as prior art of record during the prosecutions of U.S. Patent Nos. 8,478,418, 8,744,561, and 8,774,932, all of which have been assigned to InfoBionic. Additionally, on October 28, 2014, counsel for Plaintiffs informed InfoBionic of the ‘901 patent during a telephone conversation addressing InfoBionic’s infringement of CardioNet intellectual property, including the ‘901 patent.

49. Upon information and belief, InfoBionic likely became aware of the ‘901 patent long before July 20, 2012, through the knowledge of its multiple executives who were former executives or employees of CardioNet who had extensive responsibilities involving CardioNet’s patented technologies.

50. InfoBionic has committed and continues to commit acts of infringement under 35 U.S.C. § 271. Upon information and belief, InfoBionic’s acts of infringement are willful,

intentional, and without lawful justification, entitling Plaintiffs to damages and treble damages pursuant to 35 U.S.C. § 284 and reasonable attorneys fees and costs incurred in prosecuting this action pursuant to 35 U.S.C. § 285. In committing these acts of infringement, InfoBionic acted despite an objectively high likelihood that its actions constituted infringement of at least one valid and enforceable claim of the '901 patent, and InfoBionic actually knew or should have known that its actions constituted an unjustifiably high risk of infringement of at least one valid and enforceable claim of the '901 patent.

51. The acts of infringement by InfoBionic set forth above have caused and will cause Plaintiffs irreparable harm for which they have no adequate remedy at law, and will continue unless enjoined by this Court.

#### **INFRINGEMENT OF '850 PATENT**

52. InfoBionic has infringed and is continuing to infringe the '850 patent by making, using, selling, and/or offering for sale, in the United States and in this Judicial District, products, software, and/or services that incorporate or make use of one or more of the inventions covered by the '850 patent, including but not limited to the MoMe® Kardia System, thereby infringing one or more claims of the '850 patent.

53. InfoBionic's MoMe® Kardia System satisfies each and every element of one or more claims of the '850 patent, for example, and without limitation, claim 31 of the '850 patent.

54. Claim 31 of the '850 patent recites:

A system for reporting information related to arrhythmia events comprising:

a monitoring system configured to process and report physiological data,  
including heart rate data, for a living being and configured to identify  
arrhythmia events from the physiological data;

a monitoring station for receiving the physiological data from the monitoring system;

a processing system configured to receive arrhythmia information from the monitoring system and configured to receive human-assessed arrhythmia information from the monitoring station wherein the human-assessed arrhythmia information derives from at least a portion of the physiological data and wherein the processing system is capable of pictographically presenting, using a common time scale, information regarding the heart rate data during a defined time period and regarding duration of arrhythmia event activity, according to the identified arrhythmia events, during the defined time period such that heart rate trend is presented with arrhythmia event burden.

55. To the extent the preamble is considered a limitation, the MoMe® Kardia System satisfies the preamble of claim 31 of the ‘850 patent: “A system for reporting information related to arrhythmia events.” The MoMe® Kardia System is a “remote physiologic monitoring system that detects non-life threatening arrhythmias” in humans and “uses proprietary algorithms to continually analyze data and provide reports of detected events.” (Ex. H, pg. 5.)

56. The MoMe® Kardia System satisfies the following limitation of claim 31 of the ‘850 patent: “a monitoring system configured to process and report physiological data, including heart rate data, for a living being and configured to identify arrhythmia events from the physiological data.” The MoMe® Kardia System “incorporates a front end device worn by the patient that collects and streams ECG, heart rate and motion (activity) to a dedicated smartphone that continuously transmits the data to remote server.” (Ex. H, pg. 5.) The MoMe® Kardia System is a “cloud computing based ambulatory ECG monitoring and arrhythmia detection system” that uses “[c]ustom software [to analyze] transmitted data in the cloud for occurrence of arrhythmia.” (Ex. K.)

57. The MoMe® Kardia System satisfies the following limitation of claim 31 of the ‘850 patent: “a monitoring station for receiving the physiological data from the monitoring system.” The “recording unit [is] capable of continuous ECG capture” and the ECG data is

“transmitted from the device via Bluetooth® to a Smart Phone and subsequently uploaded to the cloud on a 3G commercial cellular network.” (Ex. K.) The MoMe® Kardia cloud server receives ECG data from the recording unit and assessments of the detected arrhythmias from technicians and physicians via a computer interface. (Ex. K (“The event data, automatically detected and patient-triggered, was successfully uploaded and analyzed on the cloud server in all 20 patients. Events were able to be reviewed by the research team during the monitoring period.”; “Demonstrated clinical feasibility of a cloud computing based ECG ambulatory monitoring system”; “... streamlining the clinician-computer interaction ...”; “Confirmation of arrhythmia within 72 hours”).)

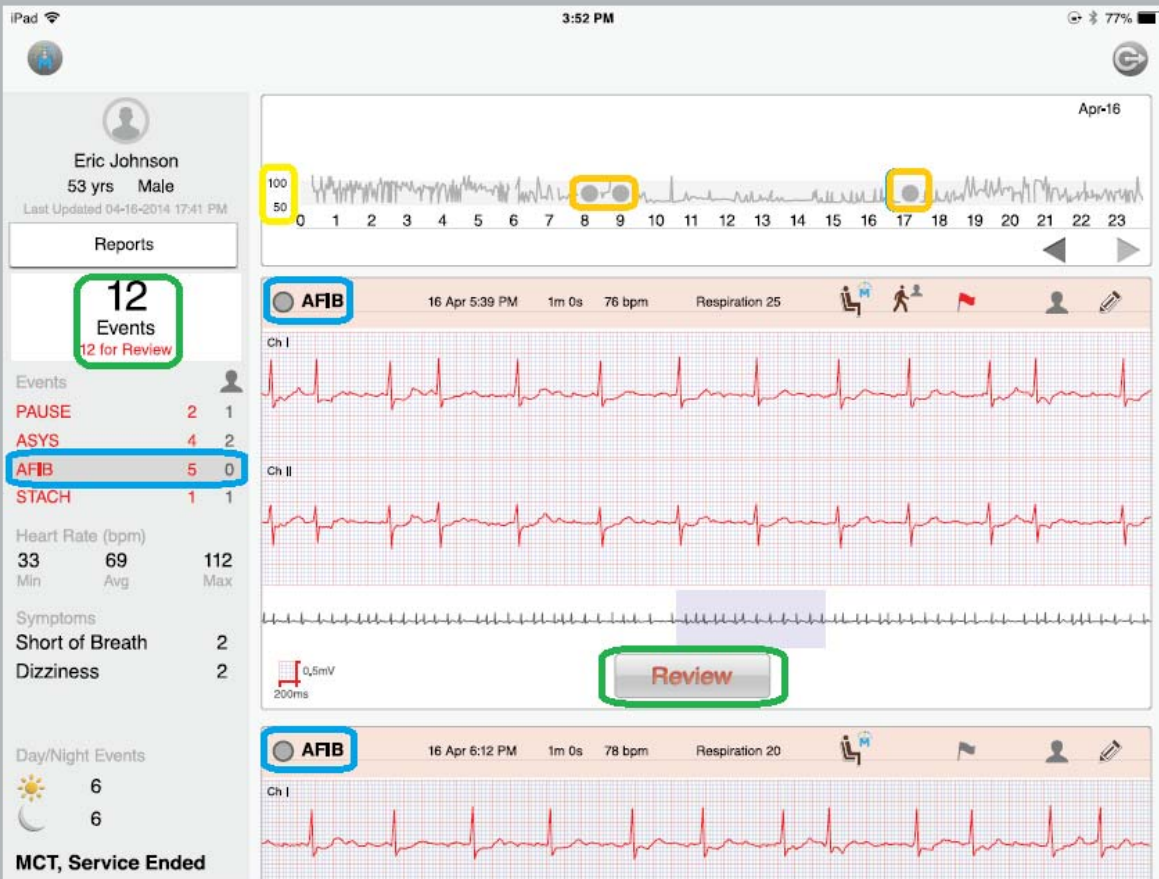
58. The MoMe® Kardia System satisfies the following limitation of claim 31 of the ‘850 patent: “a processing system configured to receive arrhythmia information from the monitoring system and configured to receive human-assessed arrhythmia information from the monitoring station wherein the human-assessed arrhythmia information derives from at least a portion of the physiological data and wherein the processing system is capable of pictographically presenting, using a common time scale, information regarding the heart rate data during a defined time period and regarding duration of arrhythmia event activity, according to the identified arrhythmia events, during the defined time period such that heart rate trend is presented with arrhythmia event burden.”

59. The MoMe® Kardia cloud server receives ECG data from the recording unit and assessments of the detected arrhythmias from technicians and physicians via a computer interface. (Ex. K (“The event data, automatically detected and patient-triggered, was successfully uploaded and analyzed on the cloud server in all 20 patients. Events were able to be reviewed by the research team during the monitoring period.”; “Demonstrated clinical feasibility



of a cloud computing based ECG ambulatory monitoring system”; “... streamlining the clinician-computer interaction ...”; “Confirmation of arrhythmia within 72 hours”).)

60. Below is a reporting interface (copied from Ex. K) for the MoMe® Kardia System with added annotations. The display shows the number of events pending review and the review button that a clinician or physician would use to complete the review (*see* green ovals). The MoMe® Kardia cloud server presents information regarding heart rate data (*see* yellow oval highlighting heart rate scale) over a 24-hour period on a common time scale with gray circles that present the overall amount of time that a patient is in arrhythmia over a specified time period, taking into account the number and duration of episodes. When the interface screenshot was captured, the “AFIB” (atrial fibrillation) event category had been selected as indicated by the darker gray highlighting and the presence of “AFIB” events in the main display (*see* blue ovals). Upon information and belief, the AFIB events are mapped in approximately 30-minute intervals labeled with gray circles on the heart rate trend graph (*see* orange ovals). Based upon the display, upon information and belief it appears the five detected AFIB events all occurred in three approximately 30-minute intervals given only three gray circles are shown.



61. InfoBionic became aware of the '850 patent at least as early as Ms. McNamara's first employment with InfoBionic. Ms. McNamara is currently a member of InfoBionic's management team. While she was previously employed with CardioNet she became aware of the '850 patent at least due to her involvement in a lawsuit between Plaintiffs and, *inter alia*, Mednet HealthCare Technologies, Inc.

62. Upon information and belief, InfoBionic likely became aware of the '850 patent also through the knowledge of its multiple other executives who were former executives or

employees of CardioNet who had extensive responsibilities involving CardioNet's patented technologies.

63. InfoBionic has committed and continues to commit acts of infringement under 35 U.S.C. § 271. Upon information and belief, InfoBionic's acts of infringement are willful, intentional, and without lawful justification, entitling Plaintiffs to damages and treble damages pursuant to 35 U.S.C. § 284 and reasonable attorneys fees and costs incurred in prosecuting this action pursuant to 35 U.S.C. § 285. In committing these acts of infringement, InfoBionic acted despite an objectively high likelihood that its actions constituted infringement of at least one valid and enforceable claim of the '850 patent, and InfoBionic actually knew or should have known that its actions constituted an unjustifiably high risk of infringement of at least one valid and enforceable claim of the '850 patent.

64. The acts of infringement by InfoBionic set forth above have caused and will cause Plaintiffs irreparable harm for which they have no adequate remedy at law, and will continue unless enjoined by this Court.

#### **INFRINGEMENT OF '996 PATENT**

65. InfoBionic has infringed and is continuing to infringe the '996 patent by making, using, selling, and/or offering for sale, in the United States and in this Judicial District, products and/or software that incorporate or make use of one or more of the inventions covered by the '996 patent, including but not limited to the MoMe® Kardia System, thereby infringing one or more claims of the '996 patent.

66. InfoBionic's MoMe® Kardia System satisfies each and every element of one or more claims of the '996 patent, for example, and without limitation, claim 12 of the '996 patent.

67. Claim 12 of the '996 patent recites:

An article comprising a machine-readable medium embodying information indicative of instructions that when performed by one or more machines result in operations comprising:

identifying atrial fibrillation events in physiological data obtained for a living being, wherein identifying atrial fibrillation events comprises examining the physiological data in multiple time intervals, and identifying intervals in which at least one atrial fibrillation event has occurred;

obtaining heart rate data for the living being;

receiving a human assessment of a subset of the identified atrial fibrillation events; and

based on the human assessment of the subset of the identified atrial fibrillation events, pictographically presenting, using a common time scale, information regarding the heart rate data for the multiple time intervals during a defined time period in alignment with indications of atrial fibrillation activity for the identified intervals, according to the identified atrial fibrillation events, during the defined time period such that heart rate trend is presented with atrial fibrillation burden, wherein pictographically presenting information regarding the heart rate data comprises displaying for each of the multiple time intervals a range of heart rates and a heart rate average.

68. To the extent the preamble is considered a limitation, the MoMe® Kardia System satisfies the preamble of claim 12 of the '996 patent: "An article comprising a machine-readable medium embodying information indicative of instructions that when performed by one or more machines result in operations." The MoMe® Kardia System is a "remote physiologic monitoring system that detects non-life threatening arrhythmias" in humans and "uses proprietary algorithms to continually analyze data and provide reports of detected events." (Ex. H, pg. 5.)

69. The MoMe® Kardia System satisfies the following limitation of claim 12 of the '996 patent: "identifying atrial fibrillation events in physiological data obtained for a living being, wherein identifying atrial fibrillation events comprises examining the physiological data in multiple time intervals, and identifying intervals in which at least one atrial fibrillation event has occurred." The MoMe® Kardia System is a "cloud computing based ambulatory ECG

monitoring and arrhythmia detection system” that uses “[c]ustom software [to analyze] transmitted data in the cloud for occurrence of arrhythmia.” (Ex. K.) Detected arrhythmias include atrial fibrillation events identified during intervals of the monitoring period and time-stamped according to the time of occurrence. (Ex. K.)

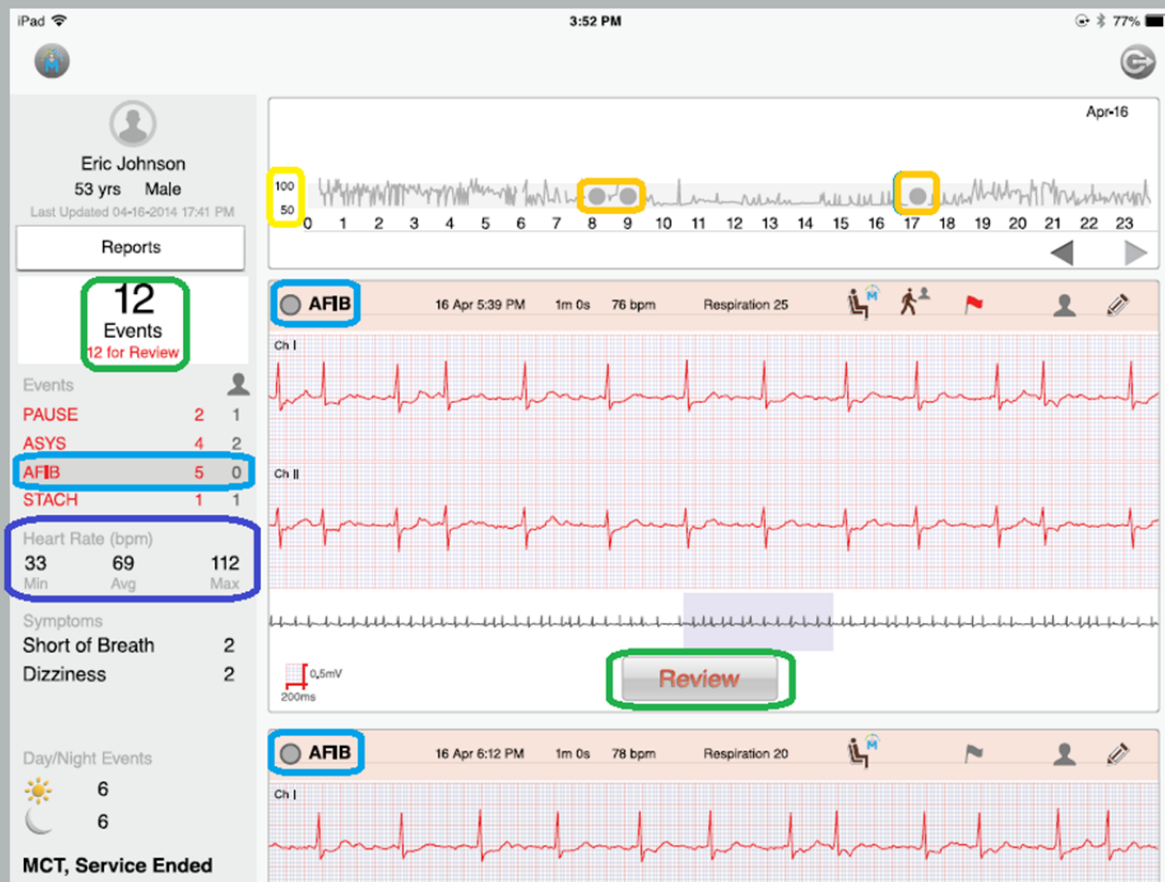
70. The MoMe® Kardia System satisfies the following limitation of claim 12 of the ‘996 patent: “obtaining heart rate data for the living being.” The MoMe® Kardia System “incorporates a front end device worn by the patient that collects and streams ECG, heart rate and motion (activity) to a dedicated smartphone that continuously transmits the data to remote server.” (Ex. H, pg. 5.)

71. The MoMe® Kardia System satisfies the following limitation of claim 12 of the ‘996 patent: “receiving a human assessment of a subset of the identified atrial fibrillation events.” The MoMe® Kardia cloud server receives ECG data from the recording unit and assessments of some or all of the detected arrhythmias from technicians and physicians via a computer interface. (Ex. K (“The event data, automatically detected and patient-triggered, was successfully uploaded and analyzed on the cloud server in all 20 patients. Events were able to be reviewed by the research team during the monitoring period.”; “Demonstrated clinical feasibility of a cloud computing based ECG ambulatory monitoring system”; “... streamlining the clinician-computer interaction ...”; “Confirmation of arrhythmia within 72 hours”).)

72. The MoMe® Kardia System satisfies the following limitation of claim 12 of the ‘996 patent: “based on the human assessment of the subset of the identified atrial fibrillation events, pictographically presenting, using a common time scale, information regarding the heart rate data for the multiple time intervals during a defined time period in alignment with indications of atrial fibrillation activity for the identified intervals, according to the identified

atrial fibrillation events, during the defined time period such that heart rate trend is presented with atrial fibrillation burden, wherein pictographically presenting information regarding the heart rate data comprises displaying for each of the multiple time intervals a range of heart rates and a heart rate average.”

73. Below is a reporting interface (copied from Ex. K) for the MoMe® Kardia System with added annotations. The display shows the number of events pending review and the review button that a clinician or physician would use to complete the review (*see* green ovals). Upon information and belief, the confirmed atrial fibrillation events will remain on the display of events and rejected events will be removed. The MoMe® Kardia cloud server presents information regarding heart rate data (*see* yellow oval highlighting heart rate scale) over a 24-hour period on a common time scale with gray circles that present the overall amount of time that a patient is in atrial fibrillation over a specified time period, taking into account the number and duration of episodes. When the interface screenshot was captured, the “AFIB” event category had been selected as indicated by the darker gray highlighting and the presence of “AFIB” events in the main display (*see* blue ovals). Upon information and belief, the AFIB events are mapped in approximately 30-minute intervals labeled with gray circles on the heart rate trend graph (*see* orange ovals). Based upon the display, upon information and belief it appears the five detected AFIB events all occurred in three approximately 30-minute intervals given only three gray circles are shown. The display also includes the heart rate minimum, maximum, and average (*see* purple oval).



74. InfoBionic became aware of the '996 patent at least as early as July 20, 2012, which is the date of the first citation of the '996 patent as prior art of record during the prosecutions of U.S. Patent Nos. 8,478,418, 8,744,561, and 8,774,932, all of which have been assigned to InfoBionic. Additionally, Ms. McNamara is currently a member of InfoBionic's management team. While she was previously employed with CardioNet she became aware of the '996 patent at least due to her involvement in a lawsuit between Plaintiffs and, *inter alia*, Mednet HealthCare Technologies, Inc.

75. Upon information and belief, InfoBionic likely became aware of the '996 patent also through the knowledge of its multiple other executives who were former executives or employees of CardioNet who had extensive responsibilities involving CardioNet's patented technologies.

76. InfoBionic has committed and continues to commit acts of infringement under 35 U.S.C. § 271. Upon information and belief, InfoBionic's acts of infringement are willful, intentional, and without lawful justification, entitling Plaintiffs to damages and treble damages pursuant to 35 U.S.C. § 284 and reasonable attorneys fees and costs incurred in prosecuting this action pursuant to 35 U.S.C. § 285. In committing these acts of infringement, InfoBionic acted despite an objectively high likelihood that its actions constituted infringement of at least one valid and enforceable claim of the '996 patent, and InfoBionic actually knew or should have known that its actions constituted an unjustifiably high risk of infringement of at least one valid and enforceable claim of the '996 patent.

77. The acts of infringement by InfoBionic set forth above have caused and will cause Plaintiffs irreparable harm for which they have no adequate remedy at law, and will continue unless enjoined by this Court.

**PRAYER FOR RELIEF**

**WHEREFORE**, Plaintiffs pray for judgment against InfoBionic as follows:

- A. Declaring that the '403 patent was duly and legally issued, and is valid and enforceable;
- B. Declaring that the '901 patent was duly and legally issued, and is valid and enforceable;



- C. Declaring that the '850 patent was duly and legally issued, and is valid and enforceable;
- D. Declaring that the '996 patent was duly and legally issued, and is valid and enforceable;
- E. Declaring that InfoBionic has infringed the '403 patent;
- F. Declaring that InfoBionic has willfully infringed the '403 patent;
- G. Declaring that InfoBionic has infringed the '901 patent;
- H. Declaring that InfoBionic has willfully infringed the '901 patent;
- I. Declaring that InfoBionic has infringed the '850 patent;
- J. Declaring that InfoBionic has willfully infringed the '850 patent;
- K. Declaring that InfoBionic has infringed the '996 patent;
- L. Declaring that InfoBionic has willfully infringed the '996 patent;
- M. Awarding to Plaintiffs damages caused by InfoBionic's infringement, including all lost profits resulting from InfoBionic's acts of infringement, and reasonable royalties, together with pre-judgment and post-judgment interest;
- N. Awarding to Plaintiffs treble damages for infringement of the '403, '901, '850, and '996 patents as a consequence of InfoBionic's willful infringement;
- O. Preliminarily and permanently enjoining InfoBionic, its officers, agents, servants, employees, attorneys, all parent and subsidiary corporations and affiliates, its assigns and successors in interest, and those persons in active concert or participation with InfoBionic who receive notice of the injunction, from continuing acts of infringement of the '403, '901, '850, and '996 patents;

- P. Adjudging this an exceptional case and awarding to Plaintiffs their reasonable attorneys fees pursuant to 35 U.S.C. § 285;
- Q. Awarding to Plaintiffs their costs and disbursements incurred in this action; and
- R. Awarding to Plaintiffs such other and further relief as this Court may deem just and proper.

**JURY TRIAL DEMANDED**

Pursuant to Fed. R. Civ. P. 38(b), Plaintiffs demand a trial by jury on all of the claims so triable.

Respectfully submitted,

ROPES & GRAY LLP

Dated: May 8, 2015

By: /s/ John P. Bueker

John P. Bueker (MA B.B.O. # 636435)  
Prudential Tower  
800 Boylston Street  
Boston, MA 02199-3600  
+1 617 951 7000

Bradford J. Badke  
Ching-Lee Fukuda  
Todd M. Simpson  
1211 Avenue of the Americas  
New York, NY 10036-8704  
+1 212 596 9000

*Attorneys for Plaintiffs*